



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/522,783	01/31/2005	Keiji Tanno	2005_0107A	1836
513	7590	04/26/2006	EXAMINER	
WENDEROTH, LIND & PONACK, L.L.P.			ESHETE, ZELALEM	
2033 K STREET N. W.			ART UNIT	
SUITE 800			PAPER NUMBER	
WASHINGTON, DC 20006-1021			3748	

DATE MAILED: 04/26/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/522,783

Applicant(s)

TANNO ET AL.

Examiner

Zelalem Eshete

Art Unit

3748

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 9, 10, 16 and 17 is/are rejected.
- 7) ☒ Claim(s) 4-8, 11-15 and 18-22 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>1/31/05</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Yamada (6,345,595).

Yamada discloses a valve timing change apparatus for changing open-close timing of an intake valve or an exhaust valve of an internal combustion engine (see figure 1A), by changing the relative angle position in the rotating direction between a cam shaft (see numeral 2) which drives said valve and a rotational drive member which receives rotational drive force of a crank shaft to rotate said cam shaft, comprising: an angle change mechanism changing and holding the relative angle position between said cam shaft and said rotational drive member by oil pressure (see numeral 1); an oil pressure generating mechanism generating oil pressure for driving said angle change mechanism by relative rotation (see numeral 22); and a drive means generating relative rotation at said oil pressure generating mechanism (see numeral 34).

Art Unit: 3748

3. Claims 1,2 are rejected under 35 U.S.C. 102(b) as being anticipated by Linder (5,386,807).

Regarding claim 1: Linder discloses a valve timing change apparatus for changing open-close timing of an intake valve or an exhaust valve of an internal combustion engine (see figure 1A), by changing the relative angle position in the rotating direction between a cam shaft (see numeral 4) which drives said valve and a rotational drive member which receives rotational drive force of a crank shaft to rotate said cam shaft (see abstract), comprising: an angle change mechanism changing and holding the relative angle position between said cam shaft and said rotational drive member by oil pressure (see figure 4); an oil pressure generating mechanism generating oil pressure for driving said angle change mechanism by relative rotation (see numeral 1); and a drive means generating relative rotation at said oil pressure generating mechanism (see numeral 2).

Regarding claim 2: Linder discloses said angle change mechanism, said oil pressure generating mechanism, and said drive means are arranged coaxially to said cam shaft (see figure 1A).

4. Claims 1-3,9,10,16,17 are rejected under 35 U.S.C. 102(b) as being anticipated by Bosch (JP 066615).

Regarding claim 1: Bosch discloses a valve timing change apparatus for changing open-close timing of an intake valve or an exhaust valve of an internal combustion engine (see figures 1-3), by changing the relative angle position in the rotating direction between a cam shaft (see numeral 10) which drives said valve and a rotational drive member which receives rotational drive force of a crank shaft to rotate said cam shaft (see abstract), comprising: an angle change mechanism changing and holding the relative angle position between said cam shaft and said rotational drive member by oil pressure (see figures 1-3); an oil pressure generating mechanism generating oil pressure for driving said angle change mechanism by relative rotation and a drive means generating relative rotation at said oil pressure generating mechanism (see abstract).

Regarding claim 2: Bosch discloses said angle change mechanism, said oil pressure generating mechanism, and said drive means are arranged coaxially to said cam shaft (see figure 1; abstract).

Regarding claim 3: Bosch discloses the angle position of said cam shaft against said rotational drive member moves in one direction by oil pressure and in the other direction by spring force (see abstract).

Regarding claim 10: Bosch discloses the angle position of said cam shaft against rotational drive member moves in one direction by oil pressure and in the other direction by spring force (see abstract).

Regarding claims 9,16,17: Bosch discloses said angle changing mechanism has an oil passage to introduce lubricating oil of an "internal combustion engine". (see figures 1-3, abstract).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 9,16,17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bosch in view of Kobayashi (6,302,071).

Bosch discloses the claimed invention as recited above; however fails to specifically disclose to introduce lubricating oil from the crankcase of the engine to drive the phaser.

However, Kobayashi teaches introducing lubricating oil from the crankcase of the engine to drive the phaser, lubrication and more (see column 7, lines 25 to 40).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to further use the crankcase oil as taught by Kobayashi in order to eliminate the need for separate oil circuit system thereby increasing the accuracy of the control system.

Allowable Subject Matter

7. Claims 4-8,11-15,18-22 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

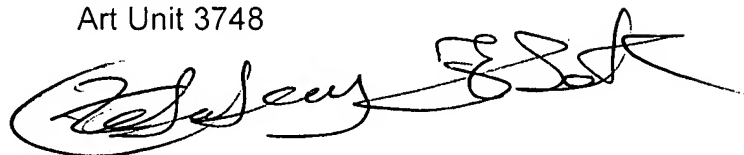
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Zelalem Eshete whose telephone number is (571) 272-4860. The examiner can normally be reached on Monday to Thursday.

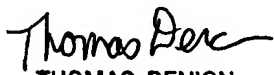
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Denion can be reached on (571) 272-4859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3748

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Zelalem Eshete
Examiner
Art Unit 3748

A handwritten signature in black ink, appearing to read 'Zelalem Eshete', with a stylized flourish at the end.


THOMAS DENION
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700